

ABSTRACT OF THE DISCLOSURE

Diamond-like carbon films are deposited on devices for implantation in tissues of a living body, preferably, retinal implants. Openings may be formed in the diamond-like carbon film, preferably in alignment with portions of the device intended for electrical contact with surrounding tissues, i.e., electrodes. Alternatively, the diamond-like carbon film may be rendered electrically conductive. Furthermore, the diamond-like carbon films may be created in such a manner that they are substantially transparent to various wavelengths of electromagnetic radiation, including visible and/or infrared light. In a presently preferred embodiment, the diamond-like carbon film is deposited using a magnetically-filtered, cathodic arc physical vapor deposition process. Implantable devices, particularly retinal implants, comprising a diamond-like carbon film may exhibit excellent biocompatibility and biodurability properties in comparison with prior art devices and passivation coatings.